

IN THE CLAIMS

1. (Currently Amended) A programmable agent workstation system in a directory assistance system (DAS) network, comprising:

- (a) a JavaPhone means;
- (b) a PlusTcp means; and
- (c) a PlusTapi means;

wherein

said JavaPhone means provides a JavaPhone with audio support in an Intelligent Workstation Platform (IWSP) including audio controls/status and/or call controls/status;

said PlusTcp means provides TCP/IP communication support for local socket connections to said JavaPhone means, wherein the local socket connection is used for communicating both audio and call control operations between the JavaPhone means and the IWSP and a call director without the use of a Call Processing Gateway (CPG) and call processing switch used to route telephony, while maintaining compatibility with the H.323 protocol;

said PlusTapi means enumerates commands and data items to the IWSP to allow a Directory Assistance (DA) operator to communicate with said JavaPhone means and perform related audio and call control operations including all switch related messaging, wherein said PlusTapi means is independent of an interface between the ISWP and the CPG, and the PlusTcp means and the PlusTapi means are implemented within a single application programming interface (API) so that each of the JavaPhone means and the PlusTapi means are usable under a single program process.

2. (Currently Amended) The programmable agent workstation system of Claim 1 wherein ~~one or more components of said system is implemented within an application programming interface (API)~~ the PlusTcp means and the PlusTapi means are implemented within a single application programming interface (API) that includes the PlusTcp means.
3. (Original) The programmable agent workstation system of Claim 1 wherein said TCP/IP communication occurs between PC-to-phone endpoints.
4. (Original) The programmable agent workstation system of Claim 1 wherein said TCP/IP communication occurs between phone-to-PC endpoints.
5. (Original) The programmable agent workstation system of Claim 1 wherein said TCP/IP communication occurs between phone-to-phone endpoints.
6. (Original) The programmable agent workstation system of Claim 1 wherein one or more components of said system is implemented on a personal computer (PC).
7. (Original) The programmable agent workstation system of Claim 6 wherein said personal computer (PC) utilizes a graphical user interface.
8. (Original) The programmable agent workstation system of Claim 7 wherein said graphical user interface utilizes a Microsoft® Windows™ operating environment.
9. (Original) The programmable agent workstation system of Claim 7 wherein said graphical user interface utilizes an IBM® AIX™ operating environment.
10. (Previously Presented) The programmable agent workstation system of Claim 1 wherein said JavaPhone means further comprises one or more of the following:
 - (a) a volume up/down means;
 - (b) a microphone mute/unmute means;
 - (c) a raise/lower microphone gain means;
 - (d) a headset unjacking detection means;

- (e) a sign on/off control/status means;
 - (f) a call arrival indication means;
 - (g) a call termination indication means;
 - (h) a call conferencing means;
 - (i) a make busy control means; and
 - (j) a hold/unhold call control means.
11. (Original) The programmable agent workstation system of Claim 10 wherein one or more components of said system is implemented within an application programming interface (API).
12. (Original) The programmable agent workstation system of Claim 10 wherein one or more components of said system is implemented on a personal computer (PC).
13. (Original) The programmable agent workstation system of Claim 12 wherein said personal computer (PC) utilizes a graphical user interface.
14. (Original) The programmable agent workstation system of Claim 13 wherein said graphical user interface utilizes a Microsoft® Windows™ operating environment.
15. (Original) The programmable agent workstation system of Claim 13 wherein said graphical user interface utilizes an IBM® AIX™ operating environment.
16. (Previously Presented) The programmable agent workstation system of Claim 1 wherein said PlusTcp means further comprises one or more of the following:
- (a) a TcpOpen means;
 - (b) a TcpClose means;
 - (c) a TcpSend means;
 - (d) a TcpRecv means;

- (e) a TcpGetLastError means; and
- (f) a TcpGetErrorString means.

17. (Original) The programmable agent workstation system of Claim 16 wherein one or more components of said system is implemented within an application programming interface (API).
18. (Original) The programmable agent workstation system of Claim 16 wherein one or more components of said system is implemented on a personal computer (PC).
19. (Original) The programmable agent workstation system of Claim 18 wherein said personal computer (PC) utilizes a graphical user interface.
20. (Original) The programmable agent workstation system of Claim 19 wherein said graphical user interface utilizes a Microsoft® Windows™ operating environment.
21. (Original) The programmable agent workstation system of Claim 19 wherein said graphical user interface utilizes an IBM® AIX™ operating environment.
22. (Previously Presented) The programmable agent workstation system of Claim 1 wherein said PlusTapi means further comprises one or more of the following:
 - (a) a TapiMakeCall means;
 - (b) a TapiHoldCall means;
 - (c) a TapiUnholdCall means;
 - (d) a TapiBlindXferCall means;
 - (e) a TapiRetrieveCall means;
 - (f) a TapiDisconnect means;
 - (g) a TapiBlindConfCall means;
 - (h) a TapiLogon means;

- (i) a TapiLogoff means;
- (j) a TapiDTMF means;
- (k) a TapiNotReady means;
- (l) a TapiReady means;
- (m) a TapiVolumeSet means;
- (n) a TapiSetProperty means;
- (o) a TapiGetProperty means;
- (p) a TapiShutdown means;
- (q) a TapiPing means;
- (r) a TapiHoldToggle means;
- (s) a TapiReadyToggle means;
- (t) a TapiMuteToggle means;
- (u) a TapiVolumeUp means;
- (v) a TapiVolumeDown means;
- (w) a TapiMicGainUp means;
- (x) a TapiMicGainDown means;
- (y) a TapiMicGainSet means; and
- (z) a TapiDisplayErrs means.

23. (Original) The programmable agent workstation system of Claim 22 wherein one or more components of said system is implemented within an application programming interface (API).

24. (Original) The programmable agent workstation system of Claim 22 wherein one or more components of said system is implemented on a personal computer (PC).
25. (Original) The programmable agent workstation system of Claim 24 wherein said personal computer (PC) utilizes a graphical user interface.
26. (Original) The programmable agent workstation system of Claim 25 wherein said graphical user interface utilizes a Microsoft® Windows™ operating environment.
27. (Original) The programmable agent workstation system of Claim 25 wherein said graphical user interface utilizes an IBM® AIX™ operating environment.
28. (Currently Amended) A programmable agent workstation method comprising:
- (1) processing Voice Over IP (VoIP) data TCP/IP communications in support of local socket connections with a PlusTcp means, wherein the local socket connection is used for communicating both audio and call control operations between a JavaPhone means and ~~the IWSP~~ a programmable agent workstation and a call director without the use of a Call Processing Gateway (CPG) and call processing switch used to route telephony, while maintaining compatibility with the H.323 protocol;
 - (2) processing user call audio control/status and call controls/status with a JavaPhone means, with a JavaPhone for providing audio support in the IWSP;
 - (3) processing user interface commands and data items to the IWSP platform to allow a Directory Assistance (DA) operator control/status with a PlusTapi means including all switch related messaging;

wherein

said processing may be performed synchronously and/or asynchronously, and

said PlusTapi means is independent of an interface between the programmable agent workstation and the CPG, and the PlusTcp means and the PlusTapi means are implemented within a single application programming interface (API)

so that each of the JavaPhone means and the PlusTapi means are usable under a single program process . .

29. (Currently Amended) The programmable agent workstation method of Claim 28 wherein ~~one or more steps of said method is implemented within an application programming interface (API)~~ the PlusTcp means and the PlusTapi means are implemented within a single application programming interface (API) that includes the PlusTcp means.
30. (Original) The programmable agent workstation method of Claim 28 wherein one or more steps is implemented on a personal computer (PC).
31. (Original) The programmable agent workstation method of Claim 30 wherein said personal computer (PC) utilizes a graphical user interface.
32. (Original) The programmable agent workstation method of Claim 31 wherein said graphical user interface utilizes a Microsoft® Windows™ operating environment.
33. (Original) The programmable agent workstation method of Claim 31 wherein said graphical user interface utilizes an IBM® AIX™ operating environment.
34. (Currently Amended) A computer usable medium having computer-readable program code means providing programmable agent workstation functionality in a directory assistance (DAS) network, said computer-readable program means comprising:
- (1) computer program code means for processing Voice Over IP (VoIP) data TCP/IP communications in support of local socket connections with a PlusTcp means, wherein the local socket connection is used for communicating both audio and call control operations between a JavaPhone means and ~~the IWSP~~ a programmable agent workstation and a call director without the use of a Call Processing Gateway (CPG) and call processing switch used to route telephony, while maintaining compatibility with the H.323 protocol;
 - (2) computer program code means for processing user call audio

control/status and call controls/status with a JavaPhone means with a JavaPhone for providing audio support in the IWSP;

- (3) computer program code means for processing user interface commands and data items to the IWSP platform to allow a Directory Assistance (DA) operator control/status with a PlusTapi means including all switch related messaging;

wherein

said processing may be performed synchronously and/or asynchronously, and

said PlusTapi means is independent of an interface between the programmable agent workstation and the CPG, and the PlusTcp means and the PlusTapi means are implemented within a single application programming interface (API) so that each of the JavaPhone means and the PlusTapi means are usable under a single program process.

35. (Original) The computer usable medium of Claim 34 wherein said medium is compatible with a personal computer (PC).
36. (Original) The computer usable medium of Claim 35 wherein said computer code means utilizes a graphical user interface.
37. (Original) The computer usable medium of Claim 36 wherein said graphical user interface utilizes a Microsoft® Windows™ operating environment.
38. (Original) The computer usable medium of Claim 36 wherein said graphical user interface utilizes an IBM® AIX™ operating environment.